

## **ABSTRACT**

A traction unit capable of traversing and turning on surfaces that include compound curves like the surface of a sphere or are inverted like a ceiling. The traction unit includes a plurality of trucks operable to propel the unit across a surface and a plurality of adherence members operable to releasably secure the unit to the surface. In operation, the adherence members cyclically attach to and release from the surface as the trucks propel the unit across the surface. Within each cycle, after the unit has traveled a predetermined distance relative to an attached member, the member releases the surface and reattaches to the surface at a different point.